REMARKS

The Office Action dated August 12, 2004, has been received and carefully noted. The following remarks are submitted as a full and complete response thereto. Claims 1-5 are respectfully submitted for consideration.

Claims 1, 2, and 5 were rejected under 35 U.S.C. § 102(e) as being unpatentable *Schwartz et al.* (U.S. Patent No. 6,434,115). Claim 3 was rejected under 35 U.S.C. § 103(a) as being unpatentable over *Schwartz et al.* in view of *Zheng et al.* (U.S. Patent No. 6,611,522). The above rejections are respectfully traversed according to the remarks that follow.

The present invention is directed to, according to claim 1, a method for managing congestion in a network switch. The method includes the steps of receiving an incoming packet on a first port of a network switch for transmission to a destination port, determining if the destination port is a monitored port, determining a queue status of the destination port, if the destination port is determined to be a monitored port and prescheduling transmission of the incoming packet to the destination port if the destination port is determined to be a monitored port. Additionally, the network switch is one of a plurality of network switches configured in a stack and the step of prescheduling transmission includes dropping the incoming packet only when the queue status of the destination port indicates that a queue for the destination port is full. Claims 2 and 5 depend from claim 1.

The present invention is also directed to, according to claim 3, a method for managing congestion in a network switch. The method includes the steps of receiving an incoming packet on a first port of a network switch for transmission to a destination port, determining if the destination port is a monitored port, determining a queue status of the destination port, if the destination port is determined to be a monitored port and prescheduling transmission of the incoming packet to the destination port if the destination port is determined to be a monitored port. The prescheduling step of further includess the steps of classifying the queue status of the destination port and taking action in accordance with the classification of the queue status. Additionally, the classifying step further includes the steps of classifying the queue status of the destination port as a first type if a level of data in the queue is less than or equal to a first predetermined level, classifying the queue status of the destination port as a second type if the level of data in the queue is less than or equal to a second predetermined level and greater than the first predetermined level and classifying the queue status of the destination port as a third type if the level of data in the queue is greater than the second predetermined level. Claim 4 depends from claim 3, where claim 4 was indicated as containing allowable subject matter.

The invention, according to one embodiment described in the specification, is directed to methods of servicing the CoS queues at a source IPIC based upon the egress port queue status *across the stack*, as opposed to servicing the queues based upon CoS priority. Through servicing the queues based upon the egress queue status, the method

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effectively considers the CoS priority in conjunction with the egress queue status, which in turn minimizes port congestion and transmission delay across the stack. While the present invention minimizes port congestion, incoming packets are not dropped until a destination queue is indicated as being full. As such, Applicants respectfully assert that the cited references fail to teach or suggest all of the elements of the present claims.

Schwartz et al. is directed to a switching node for transferring packets. The node receives a plurality of packets on input ports to be forwarded through output ports. As illustrated in Fig. 5, the packet pass/drop module 42(n) receives a signal from the output port(n) status info module 43(n) and can use the status of the output ports to determine whether the packet should be dropped. In the rejection, it is alleged that the "switching node 11 is one of a plurality of switching nodes 11s configured in a stack." However, Applicants respectfully assert that *Schwartz et al.* fails to teach or suggest the stacking of network devices as described and claimed in the instant invention.

Claims 1 recites, in part, that the network switch "is one of a plurality of network switches configured in a stack." The "stacking" of network switches is discussed in the instant application at page 99, line 19 through page 101, line 19 and illustrated in Figs. 26 and 27. The use of the term "stack" is different from a mere connection between switches, as discussed in the above-cited section. Thus, the recitation of a plurality of network switches configured in a stack is different from what is illustrated in Fig. 1, for example, in *Schwartz et al.*, where the network nodes are merely connected to each other. As such, Applicants respectfully assert that *Schwartz et al.* cannot teach or suggest all of

the elements of claim 1 and that the rejection of claim 1 is therefore improper. Additionally, since claims 2 and 5 depend from claim 1, their rejection would likewise be improper. Reconsideration and withdrawal of the rejection of claims 1, 2 and 5 are respectfully requested.

Turning now to the rejection of claim 3, the Office Action alleged that that claim was obvious in view of *Schwartz et al.* in view of *Zheng et al.* It is acknowledged, in the Office Action, that *Schwartz et al.* fails to teach the classification of queue status based on predetermined levels and thus, the Office Action also cites *Zheng et al. Zheng et al.* is directed to a quality of service facility in a device performing IP forwarding and ATM switching. The Office applies *Zheng et al.* for its alleged teaching of outputting data based on three levels of output queue status. The rejection of claim 3 is respectfully traversed.

Zheng et al. discloses three watermarks, according to column 27, lines 3-45, but only for low priority queues; higher priority queues have only two watermarks and *Zheng et al.* discloses that such distinctions need to be made in order to allow for proper management of the queues. *Schwartz et al.* fails to disclose applying differing monitoring activities to the any types of queues. As such, Applicants respectfully assert that any combination of *Schwartz et al.* and *Zheng et al.* would not provide the motivation proffered in the rejection, namely "to control output data effectively." Such a combination would only provide a system having a more complicated control structure

and would not be desirable. For at least this reason, Applicants respectfully assert that the rejection of claim 3 is improper and should be withdrawn.

Thus, Applicants respectfully assert that any rejection of claims 1 and 3 over *Schwartz et al.* and *Zheng et al.* would be improper for failing to teach or suggest all of the elements of those claims. On the basis of the above, independent claims 1 and 3 are respectfully asserted to be patentable, and as a consequence the dependent claims 2 and 5 are patentable as well. Applicants respectfully request the allowance of all claims and that the application be allowed to pass to issue.

In addition, Applicants note that in the prior Office Action, claim 4 was indicated as containing allowable subject matter and would be allowed if placed in independent form. Applicants respectfully assert that claim 4 should be allowed as presently claimed given the presumed allowance of claim 3, from which claim 4 depends.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

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